DOCUMENT RESUME

ED 285 869 SP 029 362

AUTHOR Burstein, Nancy Davis
TITLE The Distribution of Student Teacher Time among Activities at the Elementary Level.
PUB DATE Apr 87
NOTE 27p.; Paper presented at the Annual Meeting of the American Educational Research Association (Washington, DC, April 20-24, 1987).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Elementary Education; Higher Education; *Preservice Teacher Education; *Student Teachers; Student Teaching; *Teacher Behavior; *Teaching Conditions; *Time Factors (Learning); Time Management

ABSTRACT

This study examined how student teachers spent their time during student teaching and the structural conditions in the classroom that may have influenced these activities. Specifically, the nature of student teachers' activities was investigated relative to time spent in subject areas, grouping arrangements, and observing and teaching. Data collected from 10 student teachers, graduate students enrolled in a one-year post-baccalaureate teacher education multiple subjects credential program at an urban university in Southern California, indicated that classroom activities among student teachers varied considerably, even within a single teacher education program. Differences were found among student teachers in time spent in the transition from observing to teaching; time spent in individual, small group, and whole group instruction; and time spent in curricular areas. The transition of student teachers from observing to teaching, however, was similar in that teaching increased and observing decreased over time. (Author/CB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED285869

THE DISTRIBUTION OF STUDENT TEACHER TIME AMONG ACTIVITIES AT THE ELEMENTARY LEVEL

NANCY DAVIS BURSTEIN

MOUNT ST. MARY'S COLLEGE

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

N. Burstein

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PAPER PRESENTED AT THE ANNUAL MEETING OF THE AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, WASHINGTON D.C., APRIL 1987.

SP 029 362

2 BEST COPY AVAILABLE

ABSTRACT

The purpose in this study was to provide information on how student teachers spend their time during student teaching and to examine the structural conditions in the classroom that may influence these activities. Specifically, the nature of student teacher's activities was investigated relative to time spent in subject areas, grouping arrangements, and observing and teaching. Results from the study indicate that classroom activities among student teachers vary considerably, even within a single teacher education program; differences were found among student teachers in time spent transitioning from observing to teaching, time spent in individual, small group, and whole group instruction, and time spent in curricular areas. Implications of the findings are discussed relative to the prepartion of student teachers.

THE DISTRIBUTION OF STUDENT TEACHER TIME AMONG ACTIVITIES AT THE ELEMENTARY LEVEL

Nancy Davis Burstein
Mount St. Mary's College

Student teaching is the culminating activity in preparing a teacher and is considered to be one of the most critical components of a teacher education program (Conant, 1963; Drummond, 1980; Hall, 1985; Joyce, Yarger & Harvey, 1977; Lortie, 1975). Despite its importance, however, little systematic research exists addressing the types of field experiences student teachers have and what the consequences of these experiences may be (Doyle, 1985).

Most student teaching programs are similar in their overall structure; student teachers take on increasing teacher responsibility in a classroom over a period of consecutive weeks, under the guidance of an experienced supervising teacher and a college supervisor. What actually happens, though, relative to student teacher activities within the classroom may vary considerably. As Becher and Ade (1982, p. 25) point out, "By their very nature, no two placement sites are alike. All vary on a number of dimensions, and it is likely that they may have potentially different effects and make potentially different contributions to a student's growth". To understand the role of student teaching in teacher development, more emphasis must be placed on the specific constraints and opportunities which are present in specific classrooms (Zeichner, 1986).

According to Zeichner (1980), two influences within the classroom that affect a student teacher's experiences are the

supervising teacher and the classroom ecology. The supervising teacher structures the kind and amount of activities in which the student teacher engages. The classroom ecology, that is, the processes and events within the classroom, provide a structure in which the student teacher must operate. For the most part, the student teacher enters a classroom that has established procedures, schedules, and routines. The student teacher is expected to learn the "ways" of the classroom and to teach within this established structure. Given the structuring of a student teacher's experiences by the classroom teacher and the classroom ecology, these factors may play an important role in teacher development.

The purpose in this study was to provide information on how student teachers spend their time during student teaching and to examine the structural conditions in the classroom that may influence these activities. Specifically, the nature of student teachers activities was investigated relative to time spent in subject areas (e.g., reading, math, science, social studies, etc.), grouping arrangements (individual, small group, large group), and observing and teaching.

Method

Subjects

Subjects were graduate students enrolled in a one year post-baccalaureate teacher education multiple subjects credential program at an urban university in Southern California. All students enrolled in a class for student teaching initially participated in the study. There were fifteen females and three

males. Four of the eighteen students did not comply with the requirements for data collection and were dropped from the study. Four other students provided incomplete data. Ten students, 8 females and 2 males provided complete data. The results of data from these ten subjects are reported in this paper.

School Sites

Student teachers were assigned to three elementary schools, serving kindergarten to sixth grade children, located in a large metropolitan area. One school was on a year-round schedule, the other two schools were on an traditional academic school year calendar. Two of the schools were in lower socio-economic areas; one school served predominantly Asian and Hispanic children and offered a number of bilingual programs, the other school served predominantly Black and Hispanic children. The third school was located in an upper-middle socio-economic area and served White and Asian neighborhood students and minority students bussed in from overcrowded schools in lower socio-economic areas.

Student Teaching Program

All ten subjects were full-time students in a one year multiple subjects credential program. During the September-June school year students took all coursework required for a teaching credential. This included coursework on campus throughout the year and three fieldwork courses; observation and participation in the fall and two student teaching assignments, one in the winter and one in the spring.

Data for this study was collected during the first teaching

assignment. Student teachers were required to spend a minimum of 165 hours student teaching over a 12-week period. Student teachers assigned to the year-round school spent fewer weeks and longer hours per day to accomodate to the year-round schedule. Most student teaching was done in the morning since credential courses were taken on campus several afternoons a week.

Student teachers were assigned to a supervising teacher at a grade level they requested; two were in kindergarten, three were in first grade, two were in fifth grade, and three were in sixth grade. As part of the student teaching program, supervising teachers met with the university supervisor at the beginning of the assignment to discuss requirements of student teaching. The meeting included providing supervising teachers with a handout on suggested timelines to transition the student teachers into student teaching. According to this timeline it was recommended that students be responsible almost entirely for teaching in the classroom by the last third of the student teaching period.

Data Collection Procedures

Students were required to keep a daily log of their student teaching activities. During each day they were to identify the time spent in each subject area, the nature of their involvement (observing or teaching), and the grouping arrangement during teaching (individual, small group, whole group). Also included was the date of each entry and an attendance record of days present during the student teaching period. Logs were coded according to the categories provided in Figure 1.

Results

Time Spent Observing and Teaching

As shown in Table 1, student teachers spent a mean average of 26.39 hours (22%) observing and 941.30 hours (78%) teaching. Examination of time spent observing and teaching for individual student teachers shows great variation. The percentage of time student teachers observed ranged from 6% to 46% while the percentage of time student teachers taught ranged from 54% to 94%.

To investigate the transition from observation to teaching, the number of days the student teacher was present in the classroom was divided into thirds and designated as first period, middle period, and last period of student teaching. It was expected that teaching would increase and observation would decrease over time.

Table 2 indicates time spent in each period of student teaching. As expected, the mean time spent observing decreased from 15.04 hours (40%) in the first period to 7.86 hours (19%) in the middle period, to 3.49 hours (8%) in the last period. The opposite occurred for teaching. Teaching increased from a mean average of 22.50 hours (60%) in the first period, to 33.94 hours (81%) in the middle period, to 37.70 hours (92%) in the last period.

Examination of time spent observing and teaching for individual student teachers follows a similar pattern. Seven of the ten student teachers increased time spent teaching in the middle and last periods of student teaching. Of the three remaining students, one student (student 6) increased teaching time from the first period to the middle period only. For this

student, teaching time remained constant from the middle to the last period, probably because the student teacher was already teaching 97% of the time. A second student's teaching time (student 7) remained constant in the first and middle period, already at a high teaching level of 91%; in the last period teaching time increased to 99%. A third student's teaching time (student 8) increased from the first period (81%) to the middle period (89%) but went down slightly (86%) in the last period.

While there is consistency over the three time periods of student teaching, that is, overall student teachers increased time spent teaching and decreased time spent observing during student teaching, there is variability among student teachers within each time period. In the first time period, the beginning of student teaching, time spent teaching in the classroom ranged from 33% to 91%. Clearly, some students take on major teaching responsibilities almost immediately while others spend much more time observing than teaching. It is not clear whether this variability is related to the experience of the student teacher or the supervision style of the classroom teacher.

During the middle period there is somewhat less variability than in the first period. Time spent teaching ranges from 47% to 97%. The least variability in time spent teaching appears in the last period. Teaching ranged from 78% to 97%. It may be that while supervising teachers vary a great deal in transitioning student teachers into the classroom they consistently expect student teachers to spend most of their time teaching by the end

of their assignment. It may also be that expectations from the university are more clearly stated for the end of student teaching than the beginning. In the present study, supervising teachers were asked to provide primary responsibility to student teachers by the end of their assignment. This direction may have facilitated the consistency in time spent teaching found during the last period of student teaching.

In summary, during student teaching students spent 78% of their time teaching and 22% of their time observing. Time spent observing and teaching, however, varied over the student teaching period. Observation decreased and teaching increased over time. While this pattern was consistent, time spent observing and teaching varied among individual student teachers, especially during the beginning and middle periods of student teaching. It appears that while supervising teachers consistently decrease observation and increase teaching for student teachers over time they vary in the amount of time they take to transition their student teachers into teaching.

Time Spent in Individual, Small Group, and Whole Group Teaching

Table 3 shows the time student teachers spent teaching individuals, small groups, and whole groups. Overall, the mean time spent in whole group instruction was 43.75 hours (53%), small group instruction was 28.85 hours (35%), and individual instruction was 10.80 hours (13%).

Time spent in individual , small group, and whole group teaching varied, however, among student teachers. Whole group instruction ranged from 20% to 80%. Thus some students spent

most of their time teaching in whole groups while others had very little experience in this instructional arrangement. Similar variability appeared for small group teaching, ranging from 1% to 66%. At least four students spent less than one quarter of their time teaching small groups. Individual instruction was also variable. About half of the student teachers spent 7% of their time or less instructing individuals while the other half spent 17% to 35% instructing individuals. This variability does not appear to be related to grade level.

In sum, student teachers varied in their time spent in whole group, small group, and individual instruction. Five students spent most of their time in whole group instruction while five student teachers spent most of their time in small group instruction. Several student teachers spent little time in individual instruction or small group instruction while others distributed their time over all three instructional arrangements. The differences in grouping practices found for student teachers probably are determined by the structural conditions within the classroom rather than the practices of the student teacher. The grouping arrangements are established by the supervising teacher and typically maintained by the student teacher who learns to teach within the existing framework.

Time Spent in Each Activity

Activities identified in logs were categorized into eleven categories. These were subject areas (reading, math, social studies, science, spelling, art, music, physical education), management, out of class, and miscellaneous (any activity that did not fit the other categories). These activities are

described in Figure 1.

Time student teachers spent in each activity is shown in Table 4. Student teachers spent more time in reading activities (mean = 39.07, 32%) than in any other category of activities; second most time was spent in math activities (mean = 24.95, 21%). The next most time was spent in management (mean = 9.95, 10%), and miscellaneous (mean = 9.95, 10%). As a group student teachers spent less than 10% of their time in all other activities.

Examination of individual scores shows variability among students in the activities they observed and taught. Although the mean percentage time spent in reading was 32%, the range in reading for individual student teachers was 13% to 52%. In math the mean percentage was 21% but the range for individual student teachers was 5% to 56%.

Time spent in social studies and science was low overall (mean = 7.31, 6%; mean = 12.04, 9% respectively). This may be because these subject areas are often taught in the afternoon and student teachers were in the classroom primarily during morning hours. Even with the low overall means the range for individual student teachers was large; time spent in social studies ranged from 1% to 18%, time spent in science ranged from 4% to 46%.

Time spent in spelling (mean = 5.52, 5%), art (mean = 3.27, 3%), music (mean = 1.28, 1%), and physical education (mean = 2.28, 2%) were typically low. Several students had no experiences at all in at least one of these activities. Again this may have been because the activities were offered in the afternoon. All student teachers indicated at least some

management activities but again, time spent in management activities varied among individual students. While the mean was 10%, the range for management activities was 2% to 37%.

Overall, at least for these student teachers, there was little consistency in time spent in each activity. In fact, none of the students spent time in all of the activities identified. Time spent in classroom activities may in fact vary depending on the structural conditions within the classroom. It seems reasonable to assume, however, that more consistency among student teachers may have occurred if student teachers had remained in the classroom the entire school day. The variability in subject matter may also be due to inaccurate data collection. Student teachers may not have always identified an activity such as spelling or management but may have included these as a part of other activities.

Discussion

The purpose in this study was to investigate how student teachers spend their time during student teaching and to examine the structural conditions in the classroom that may influence these activities. Results from the study indicate that classroom activities among student teachers vary considerably, even within a single teacher education program; differences were found among student teachers in time spent transitioning from observing to teaching, time spent in individual, small group, and whole group instruction, and time spent in curricular areas.

Overall, the transition of student teachers from observing to teaching was similar in that teaching increased and observing decreased over time. Student teachers, as expected, took on

increased teaching responsibility in the classroom. The amount of time spent observing and teaching varied however, for student teachers, especially during the beginning and middle periods of student teaching. For example, at the beginning of student teaching some student teachers spent much of their time observing while others spent a substantial amount of time teaching. The speed, then, in which student teachers transitioned from observing to teaching varied considerably.

It is not clear from this study how the transition from observing to teaching is determined. It is the supervising teacher who has the major responsibility for structuring and monitoring the transition and this may depend on a number of factors. Certainly, a student teacher's abilities and personality may account for some of the variation in transition. Student teachers who are experienced or appear capable and eager may be expected to transition more quickly than the more inexperienced or reticent student teacher. Another factor that may influence the transition of the student teacher is the supervising teacher's notion of how best to prepare a teacher. Some supervising teachers believe it's important for the student teacher to begin teaching almost immediately, to "plunge" right in, while others prefer that the student teacher observes and models the supervising teacher, transitioning into teaching gradually. While many student teaching programs have guidelines for the student teacher relative to appropriate activities for student teachers over the length of their assignment, little is known about how these activities, and the speed in which they

occur, actually affect the preparation of a teacher.

Research on inservice training of teaching skills and strategies (Joyce & Showers, 1980) may lend some insight into this area. This research indicates that teaching is improved through several training components. The components that are relevant in the classroom preparation of a student teacher include modeling or demonstrating skills or models of teaching, practice in the classroom setting, and providing informatioon about performance. Application of this model to student teaching would mean that a student teacher observes the supervising teacher model or demonstrate a skill or lesson, the student teacher teaches a similar skill or lesson while the supervising teacher observes the student teacher, and then the supervising teacher provides feedback to the student teacher relative to the effectiveness of the instruction. It may be , according to this model, that a student teacher should begin teaching, only after she or he has had an opportunity to watch the supervising teacher in each activity. It may also be that observation should continue throughout student teaching as new skills and activities are introduced. According to the model for inservice training both observing and teaching are important, but they must be done in systematic ways. Research is needed on systematic ways to transition a student teacher into teaching to provide direction to the supervising teacher and the teacher education program on how to systematically structure student teaching activities.

Other areas that varied considerably among student teaching were the grouping arrangements within the classroom and the

curricular areas in which student teachers taught. For example, some student teachers spent little time teaching in large groups while others spent little time teaching in small groups or on an individual basis. Likewise, in curricular areas, some student teachers taught primarily in one or two subject areas and spent little or no time at all in other subject areas; other student teachers spent at least some of their time in a variety of subject areas. Apparently this variation occurs, at least in part, because of the structural conditions within the classroom. Zeichner (1980) points out that the processes and events within the classroom establish limits on the range of teacher classroom behaviors. These processes are established before the student teacher arrives and continue after the student teacher leaves; thus the student teacher's activities are structured within the already established patterns of the classroom. In this study, given the variation in curriculum activities and instructional grouping for student teachers, the structural conditions within the classroom seem to play a major role in determining student teacher activities.

Much has been written on the need to increase the time spent in field experiences so that education students will be better prepared to teach. It may be that in this particular program, an increase in time might provide experiences in a variety of curricular areas and grouping arrangements for student teachers. On the other hand, focusing on the quantity of student teacher time is misguided since increasing time in student teaching may mean just more of the same activities. What is important in

student teaching is that student teachers are provided opportunities to develop in all areas necessary to successfully begin teaching. To ensure that student teachers receive preparation in necessary skills and curricular areas for teaching these should be reflected as requirements of the student teacher program. For example, it seems reasonable to require that student teachers teach in all areas of the elementary curriculum. Most state departments of education have have specific guidelines on the amount of time that teachers should spend in each subject area. It would seem that preparation of teachers should reflect such guidelines. Not only must approrpiate requirements in student teaching programs be established but they must be monitored to ensure that student teachers actually are afforded opportunities to complete the requirements within any given classroom.

A major problem indicated by supervising teachers is that the university provides little direction relative to requirements for student teaching (Griffin, 1983). This may account for some of the variation among student teacher activties. For example, in this particular study all student teachers had primary responsibility of the classroom towards the end of student teaching. This was a requirement of the program and one that was reiterated to supervising teachers throughout the assignment. It may be that supervising teachers are willing to accomodate, whenever possible, the requirements of the student teaching program. Thus with direction from the university the systematic preparation of teachers may be enhanced.

Student teaching is too critical a component in the teacher

preparation program to be left to structural conditions within the classroom that may or may not afford the complete preparation of a student teacher. The preparation of a student teacher must be done systematically, based on sound research, and involve all aspects of training necessary to prepare the student teacher for teaching. While experiences will always differ because of differences in structural conditions of classrooms, there should be some commonality among student teachers' experiences where critical components of student teacher preparation are involved. As the research identifies such components and direction is provided by university programs to supervising teachers, preparation of student teachers may be more systematic and effective. Certainly, research is needed on systematic ways to enhance the preparation of the student teacher within the classroom. Furthermore, universities need to determine what activties are important in preparing a student teacher, require such activities, and monitor the activties to ensure quality student teacher training.

a:aera

REFERENCES

Becher, R.M. & Ade, W. (1982). The relationship of field placement characteristics and students' potential field performance abilities to clinical experience performance ratings, Journal of Teacher Education, 33(2), 24-30.

Conant, J. (1963). The education of American teachers. New York: McGraw Hill.

Doyle, W. (1985). Learning to teach: an emerging direction in research on preservice teacher education, Journal of Teacher Education, 36(1), 31-32.

Drummond, R.J. (1980). The impact of a model of student teaching supervision on cooperating teachers and field supervisors. New England Teaching Corps Network. (ERIC Document 198092).

Griffin, G. (1983). Clinical preservice teacher education: Final report of a descriptive study. Clinical Teacher Education -- Preservice Series. Austin Texas: Research and Development Center for Teacher Education, University of Texas.

Hall, G. E. (1984). Beyond the looking glass: Policy, practices, and research in teacher education. Journal of Teacher Education, 36, 2-6.

Joyce, B. & Showers, B. (1980). Improving inservice training: the messages of research. Educational Leadership, 37(5) 379-385.

Lortie, D. (1975). School teacher: A sociological study. Chicago: The University of Chicago Press.

Zeichner, K. M. (1986). Content and contexts: neglected elements in studies of student teaching as an occasion for learning to teach, Journal for Education for Teaching, 12(1), 5-24.

Figure 1

Description of Categories

1. Student teacher: credential student engaged in student teaching.

2. Supervising teacher: elementary school teacher supervising the student teacher

3. School: elementary school training site

4. Grade: elementary school grade in which student teacher was assigned

5. No. of days: Number of days the student teacher was engaged in student teaching. Days absent were not counted. Missing data, where the student was present but activities were not recorded in the log, were counted.

6. Day: The day a particular activity occurred. Days are numbered consecutively by date throughout the student teaching assignment, e.g., 1/30 = day 1, 1/31 = day 2, 2/1 = day 3.

7. Activity:
   a) Observing
      Student teacher observes student activity in or out of the classroom. Log states that the activity was observed or that the teacher was engaged in the activity and it was assumed the student was observing unless noted otherwise.
   b) Teaching
      Student teacher teaches the student activity in or out of the classroom. Log states that the student teacher "instructed, helped, led, demonstrated" the activity. Includes "gave class assignment, corrected homework, teaching with Mrs. P.".
   c) Teaching or Observing
      Student teacher activity is not identified or the log states what the students are doing, not the student teacher.

8. Grouping
   a) Individual
      Instruction with an individual child. Includes monitoring seat work, working with students at seats, independent work at desks, correcting independent work.
   b) Small group
      Instruction with two or more students but not the entire class. The entire class was defined as all students present in class at any given time. Includes monitoring small group work, working

with students in a small group, correcting small group work.

c) Whole group - if not stated it was assumed to be a whole group lesson.
Instruction with entire class including correcting work.

9. *Subject
   a) Reading: includes language arts, english as a second language, reading, writing, composition, english, poetry, language
   b) Math: includes computer
   c) Social Studies: includes holidays, historic events, famous leaders such as Lincoln, Washington
   d) Science: includes nutrition and health
   e) Spelling: includes Spelling Bee
   f) Art: includes any art activity
   g) Music: includes dance
   h) Physical Education: includes motor skills
   i) Out of class: includes assembly, library, any activity out of the classroom but within the school. This category takes precedent over a subject area. For example, if Lincoln was discussed in an assembly the activity was coded as out of class, not social studies.
   j) Management: includes morning business, recess, leading children to the bathroom, cleaning up, organizing groups, taking attendance, taking children to the office, helping individuals set up for a particular activity, sitting with children during recess, passing out homework, dividing children into small groups.
   k) Miscellaneous: includes activity involving more than one subject area, an unidentified subject area, or a subject area not included above.

10. Time
Number of minutes student teacher was engaged in an activity. If several activities were described in one time period the number of minutes was divided equally among the activities. For example, "observed Mrs. P. and monitored seat work for 30 minutes. This was coded as 15 minutes observation, 15 minutes individual miscellaneous.

*Activities that took place out of school such as field trips were not coded. Recess and lunch were also not coded unless the teacher or student teacher was involved in this activity as noted in the log.

a:descats

Table 1

Time Spent Observing and Teaching

Student	Grade	Observing Time	%	Teaching Time	%	All Time
1	K	42.28	41	59.87	59	102.15
2	K	17.57	16	91.67	84	109.23
3	1	20.87	18	98.25	82	119.12
4	1	21.58	16	115.83	84	137.42
5	1	26.63	27	98.83	79	125.47
6	5	14.00	13	96.43	87	110.43
7	5	6.55	6	98.67	94	105.22
8	6	14.25	14	84.12	86	98.37
9	6	30.32	21	115.87	79	146.18
10	6	69.83	46	81.60	54	151.43
Mean		26.39	22	94.13	78	120.52
S.D.		18.20		16.47		

Table 2

Time Spent Observing and Teaching Over Three Time Periods

Student	Grade	First Time Period					Middle Time Period					Last Time Period				
		Observe		Teach			Observe		Teach			Observe		Teach		
		Time	%	Time	%	All	Time	%	Time	%	All	Time	%	Time	%	All
1	K	19.17	65	10.43	35	29.60	14.75	42	20.18	58	34.93	8.37	22	29.25	78	37.62
2	K	8.72	30	20.67	70	29.39	7.10	16	37.67	84	44.77	1.75	5	33.33	95	35.08
3	1	17.62	42	24.57	58	42.19	2.58	8	29.88	92	32.46	.67	2	43.80	98	44.47
4	1	15.25	32	32.25	68	47.50	4.83	11	40.58	89	45.41	1.50	3	43.00	97	44.50
5	1	15.27	41	22.40	59	37.67	9.25	19	38.67	81	47.92	2.12	5	37.33	95	39.45
6	5	11.50	36	20.10	64	31.60	1.33	3	41.42	97	42.75	1.17	3	34.92	97	36.09
7	5	2.97	9	28.83	91	31.80	3.08	9	32.58	91	35.66	.50	1	37.25	99	37.75
8	6	6.00	19	26.27	81	32.27	3.33	11	26.63	89	29.96	4.92	14	31.38	86	36.30
9	6	20.32	47	23.18	53	43.50	5.75	11	47.83	89	53.58	4.25	9	44.85	91	49.10
10	6	33.58	67	16.43	33	50.01	26.58	53	23.92	47	50.50	9.67	19	41.25	81	50.92
Mean		15.04	40	22.50	60	37.54	7.86	19	33.94	81	41.18	3.49	8	37.70	92	41.19
S.D.		8.66		6.20			7.66		8.76			3.29		5.45		

Table 3

Time Spent in Individual, Small Group, and Whole Group Teaching

Student	Grade	Individual Time	%	Small Group Time	%	Whole Group Time	%	Total Time
1	K	9.68	17	2.00	3	46.92	80	58.60
2	K	5.83	7	40.50	48	37.67	45	84.00
3	1	17.83	28	33.87	52	13.13	20	64.83
4	1	0	0	59.00	55	49.17	45	108.17
5	1	19.00	23	42.70	52	20.42	25	82.12
6	5	28.63	35	1.00	1	53.25	64	82.88
7	5	18.50	22	20.17	24	46.42	54	85.09
8	6	3.80	5	52.18	66	22.63	29	78.61
9	6	4.77	4	19.20	17	88.07	79	112.04
10	6	0	0	17.83	23	59.77	77	77.60
Mean		10.80	13	28.85	35	43.75	53	83.39

Table 4

Time Spent in each Activity

Student	Grade	Reading Time	%	Math Time	%	Social Studies Time	%	Science Time	%	Activity: Spelling Time	%	Art Time	%	Music Time	%	Physical Ed. Time	%	Out of Class Time	%	Management Time	%	Miscellaneous Time	%
1	K	23.50	23	4.92	5	2.08	2	2.58	3	0.00	0	4.17	4	3.17	3	7.43	7	2.83	3	38.13	37	13.33	13
2	K	34.38	31	8.22	8	7.75	7	6.00	6	0.00	0	16.08	15	5.67	5	6.17	6	3.00	3	8.50	7	13.47	12
3	1	48.15	40	27.58	23	1.33	1	3.42	3	0.55	1	2.33	2	.50	0	4.52	4	3.75	3	12.47	10	14.52	12
4	1	52.50	38	33.83	25	8.67	6	7.17	5	7.00	5	0.00	0	1.67	1	1.83	1	5.50	4	4.42	3	14.83	11
5	1	43.53	35	19.20	15	3.25	3	13.27	11	9.25	7	4.80	4	1.08	0	.33	0	4.50	4	12.62	10	13.63	11
6	5	27.35	25	62.25	56	.33	0	.42	0	0.00	0	0.00	0	0.00	0	0.00	0	.75	1	10.67	10	8.67	8
7	5	27.25	26	23.08	22	12.38	12	12.75	12	9.42	9	2.00	2	0.00	0	.50	1	4.17	4	5.92	5	7.75	7
8	6	36.17	37	27.30	28	8.75	9	1.83	2	11.80	12	1.83	2	.72	1	0.00	0	3.92	4	1.92	2	4.30	4
9	6	19.32	13	32.70	22	.83	1	66.97	46	.83	1	0.00	0	0.00	0	0.00	0	2.17	2	15.03	10	8.33	6
10	6	78.50	52	10.42	7	27.75	18	5.97	4	16.33	11	1.47	1	0.00	0	2.00	1	1.75	1	9.58	6	.67	0
Mean		39.07	32	24.95	21	7.31	6	12.04	9	5.52	5	3.27	3	1.28	1	2.28	2	3.23	3	11.93	10	9.95	10
S.D.		17.57		16.57		8.29		19.78		6.02		4.80		1.64		2.78		1.42		10.05		4.82	